CL467 A

Texas Instruments
TI-99/4 Home Computer Products

Specifications

Display

13″ Color monitor
16 Colors
5′ Video/sound cable

Console

CPU: 9900 Family, 16-bit microprocessor, plus 256-byte scratchpad RAM.
Memory: Total combined memory capacity: 72K bytes. Internal ROM memory supplied: 26K bytes. External ROM memory: (Solid State Software™ Command Modules) Up to 30K bytes each. RAM memory supplied: 16K bytes.
Keyboard: 40-key staggered Qwerty, full travel. Overlay for second functions.
Sound: 5 octaves, 3 simultaneous tones plus noise generator. From 110 Hz to beyond 40,000 Hz.
Power: 110 V, 60 Hz, 20 W. Wall mounted console transformer, UL listed 8′ power cord.
I/O: Composite video and audio output for monitor. Interface for up to 2 audio cassettes. 44-pin peripheral connector—up to 3 peripherals attached to system. System memory and address signals available at peripheral connector. Remote control interface.
Built-in Software: 14K byte BASIC interpreter. Internal Graphics Language interpreter, not user accessible. Equation calculator. Internal 4.4K byte monitor, not user accessible.
Size: 25.9 x 38.1 x 7.1 cm (10.2 x 15.0 x 2.5 in.)
Weight: Less than 2.3 kg. (5 lbs)

Three Month Limited Warranty: On TI console, monitor and Command Module hardware.

Console Technology (Detail Description)

CPU Chip (NMOS): TMS9900 16-bit microprocessor. Minicomputer instruction set including hardware multiply and divide. Architecture with 16 general registers. Can address up to 64K bytes of memory. 4 interrupt lines.
Video Display Processor Chip (NMOS): Controls display memory and generates composite video signal. 24 lines of 32 characters with 8x8 dot resolution. Provides sixteen colors: white, gray, magenta, light yellow, yellow, light red, medium red, dark red, cyan, light blue, blue, light green, medium green, dark green, black, transparent. Provides 32 sets of 8 characters each with different foreground/background colors. Addresses up to 16K bytes of RAM for CPU or display.
Sound Controller Chip (I^2L): 3 voices with 5 octave musical resolution. 15 bit programmable noise source. 100 mW audio drive with 30 db control in 2 db steps.
Solid State Software™ Command Modules. Up to 30K bytes PMOS ROM. Up to 8K bytes NMOS ROM. Simple plug-in module.

Peripherals

Remote Controls: 2 controllers. Cable: twin cable with single connector, 4′ long. 8 direction control—up, down, left, right and diagonals. Fire button. Controls designed for use with either hand.
Solid State Speech™ Synthesizer. Uses Speak & Spell™ technology. Approx. 300 words in unit. Plug-in vocabulary expansion. Hundreds of words can be added. Interfaces via I/O port.
RS-232 Interface: Provides interface to RS-232 type computer peripherals, such as printers, plotters, digitizers, D/A converters, terminals, and data tablets. Dual port, two standard DB-25 connectors
Recorder Interface: 1 or 2 standard audio cassette units (not included) interface through a cassette interface. Cable: twin cable with single connector, 2′ long. Each record recorded twice for 600 baud effective recording rate. Checksum added to end of each double recorded record. Operator interaction fully prompted. Provides mass non-volatile program/data memory storage. A number of standard cassette recorders can be used with the TI-99/4. For best operation, however, they should have such features as: tone control, microphone jack, remote jack, earphone or external speaker jack, digital tape counter. Check with your dealer and/or the "User's Reference Guide" for details.

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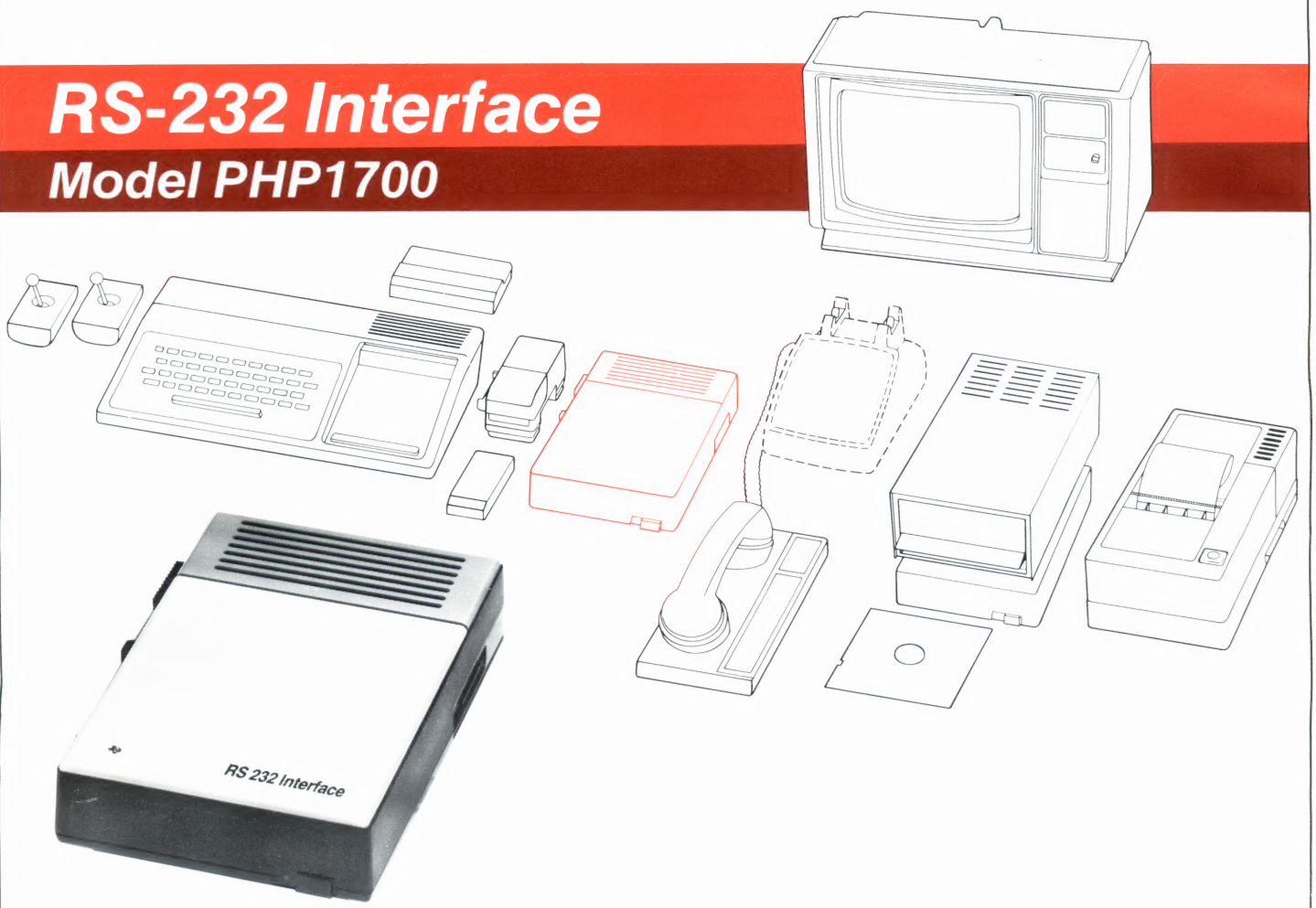
Texas Instruments
TI-99/4 Home Computer Accessory

RS-232 Interface
Model PHP1700



The Texas Instruments RS232 Interface is a communications adapter that enables you to connect a wide range of serially formatted accessory devices, including those from other manufacturers, to your TI-99/4 Home Computer. It is not required for the use of TI-99/4 peripherals manufactured by Texas Instruments (with the exception of the Telephone Coupler [Modem], where it is required). With the RS232 Interface connected to your Home Computer you can list programs on a printer, send and receive data from a terminal, exchange TI BASIC programs directly between TI Home Computers, and much more.

With the addition of the Telephone Coupler (Modem), or other standard modem or acoustic coupler, and the RS232 Interface, a whole new world of computer versatility becomes available to you. Your Home Computer can now "talk" with other computers and terminals over ordinary telephone lines. You can access your office computer or time sharing network from the comfort and convenience of your own home, using your TI Home Computer as a remote terminal to send and receive data*. This two-way communications permits interactive programming and distributed processing functions to be performed between two or more TI-99/4 Home Computers or by utilizing the TI-99/4 as a remote terminal for another computer system.

The RS232 Interface is programmable to let you exchange data with a variety of serially formatted devices. Using TI BASIC, you can select baud rate, the number of bits, parity, and the number of stop bits. This flexibility permits you to interface with both low and high-speed peripherals including printers, plotters, video display terminals, and other computers.

*Requires the Terminal Emulator Software Package for this function.

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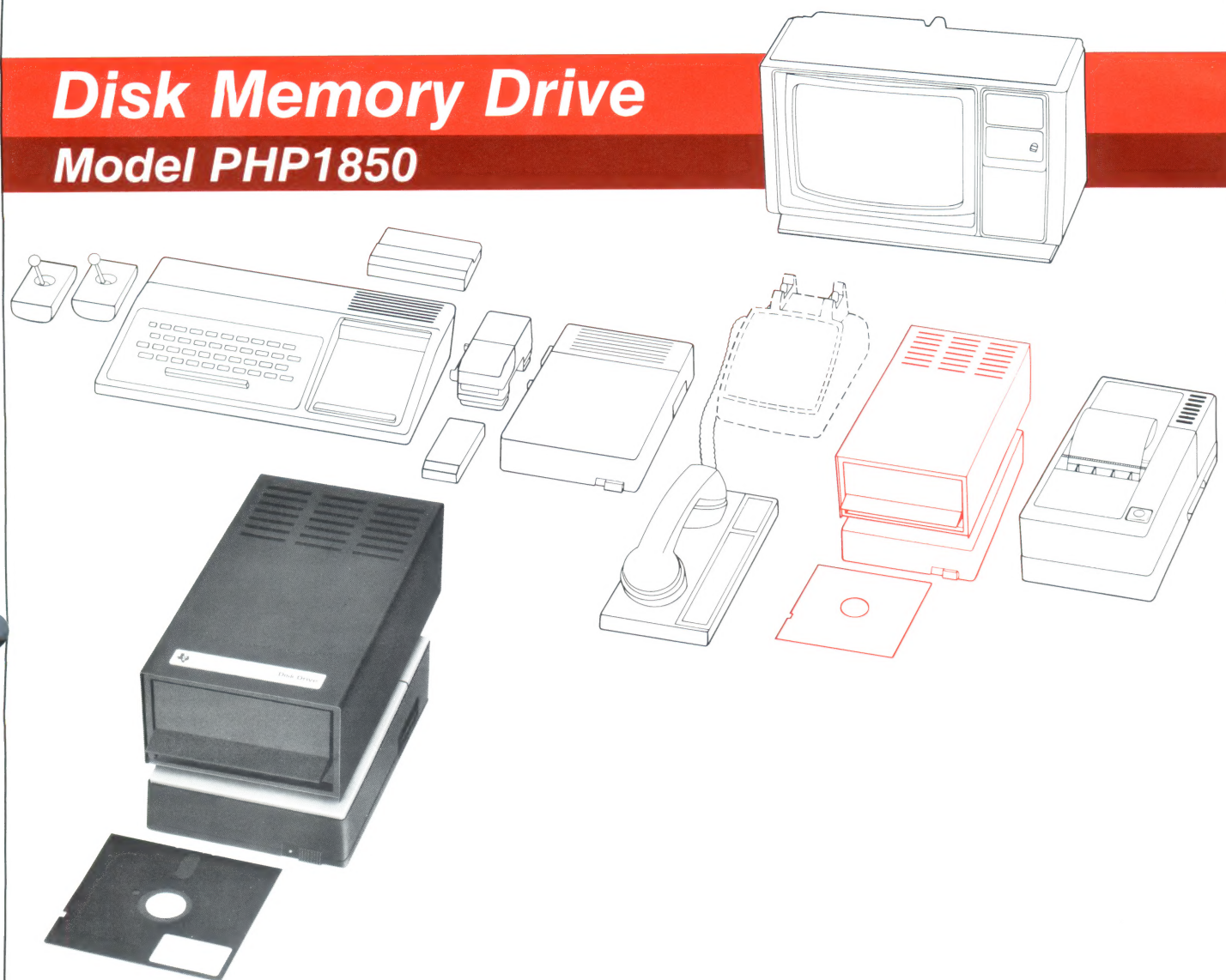
CL482A

Texas Instruments
TI-99/ Home Computer Accessory

Disk Memory Drive
Model PHP1850



The Texas Instruments Disk Memory Drive is a mini-floppy disk mass storage system with a 1 to 3-disk memory drive capability. Use of the TI Disk Memory Drive requires the TI-99/4 Disk Drive Controller (Model PHP 1800).

The TI-99/4 Home Computer mass memory system is capable of storing up to 90,000 bytes of information on each floppy diskette. Up to 127 files may be defined on each diskette.

Fixed and variable length records can be handled by the Disk Drive Controller, as well as sequential and relative files. Free disk space is automatically reassigned for user file allocation.

Provided with the controller is a Solid State Software™ Command Module which supplies disk utilities including disk and file maintenance commands. The command module is preprogrammed and greatly simplifies use of the Disk Memory Drive and Disk Drive Controller with the TI-99/4 Home Computer.

Availability of the Disk Memory Drive and Disk Drive Controller is first half 1980.

Preliminary Information

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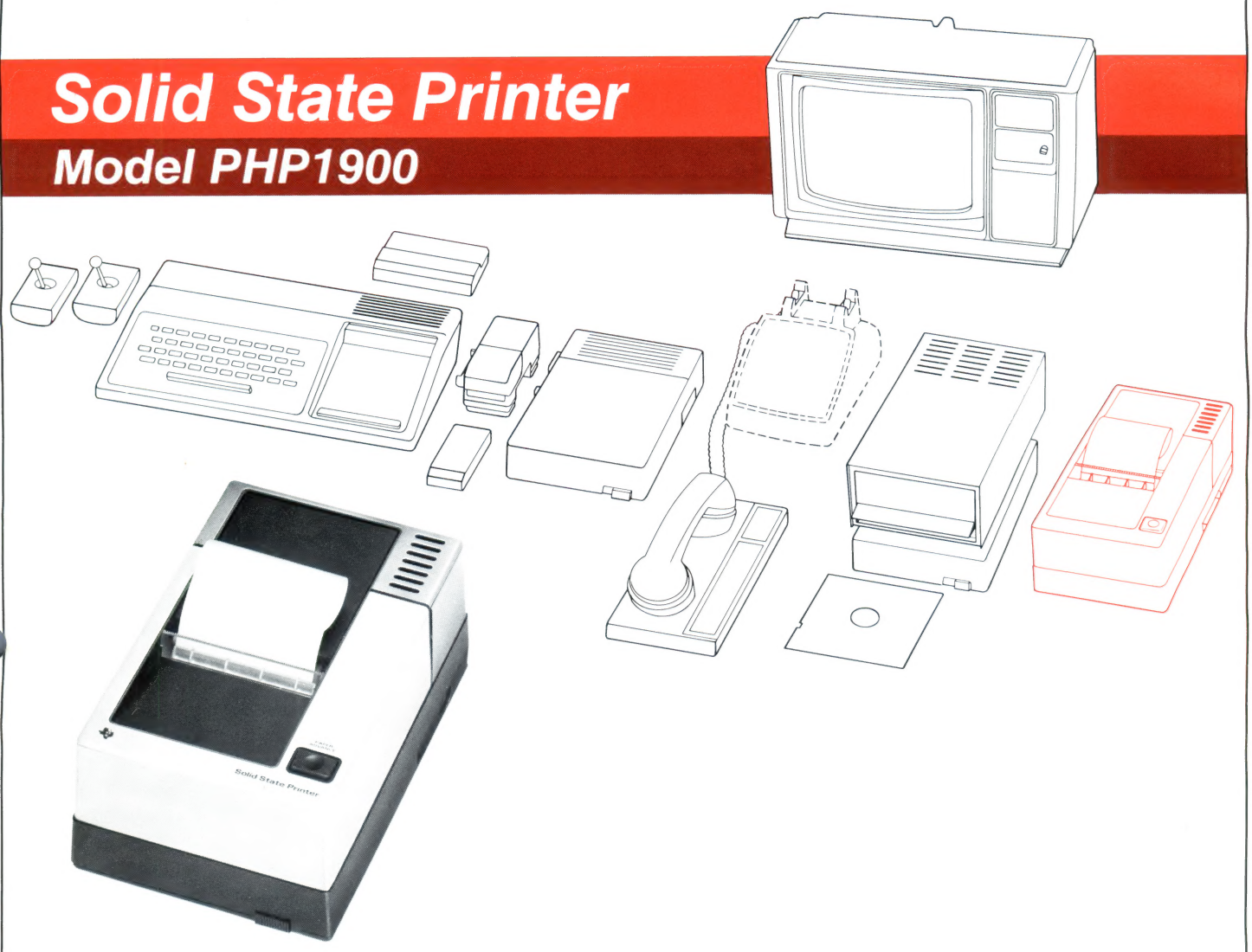
Texas Instruments
TI-99/4 Home Computer Accessory

Solid State Printer
Model PHP1900



The Texas Instruments Solid State Printer permits printing of data in a 32-column, 5 x 7 dot-matrix character format at a speed of 30 characters per second. It is controlled from TI BASIC for printing results and can list programs from the computer memory. Spacing between lines can be varied under program control, and special characters using the 5 x 7 matrix format may be defined in user programs.

The TI Solid State Printer prints hard-copy listings of programs and data in either of two character sets, and the set used for printout is software selectable from TI BASIC. In addition to standard letters and numbers, the printer has 32 pre-defined graphic symbols for printing charts and graphs.

Printing is done on 3.5 inch thermally sensitive paper, the same used for some of TI's printing commercial calculators. The Solid State Printer measures 10.2 x 6.75 x 5.5 inches.

Use of thermal printer technology greatly reduces the number of moving parts in the unit making it quieter and more reliable than impact type printers.

Availability of the new TI Solid State Printer is the first quarter of 1980.

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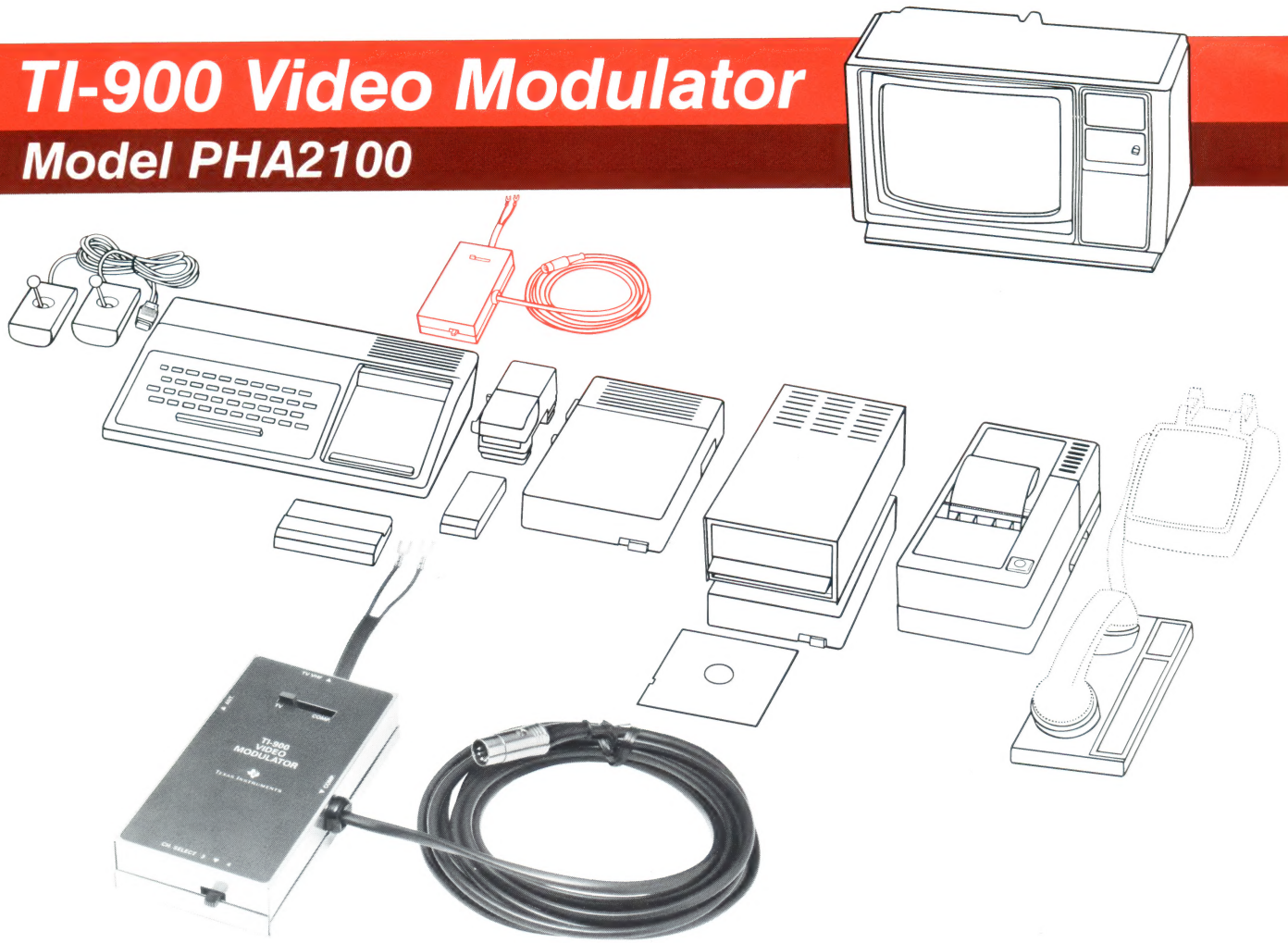
Texas Instruments
TI-99/ Home Computer Accessory

TI-900 Video Modulator
Model PHA2100



The Texas Instruments TI-900 Video Modulator is a home TV set adapter. It is designed to permit use of a conventional home TV with the Texas Instruments Home Computer. With this unit your own television set (any color or black and white set) can be used as a computer display.

The Video Modulator has a channel select switch for channels 3 and 4. If there is a television station broadcasting on one of these channels in your area, simply select the other channel on the Video Modulator. A computer/television switch allows dual use of your television without disconnecting the Video Modulator.

Limited Warranty

The Texas Instruments TI-900 Video Modulator is covered by a 90-day limited warranty against defects in materials and workmanship. See the owner's manual for complete warranty text.

Texas Instruments reserves the right to make changes in materials and specifications without notice.

NOTICE: The TI-900 Video Modulator is being offered for sale under a waiver granted to TI by the FCC, and may only be used with FCC certified Video Source.

Specifications

Weight: .3685 kg. (13 oz).
Dimensions: 8.25 cm x 15.24 cm x 3.49 cm (3¼ x 6 x 1⅜ in).
Cables: 300 ohm twin-lead — 15.24 cm (6 inches).
Video/power cable — 3.66 m (12 feet).
Electrical: **Input:** (All units supplied by computer console)
- POWER — 12VDC at 0.05 Amps maximum.
- AUDIO — 1 Vp-p (nominal for 100% modulation), AC coupled, 10K ohms minimum impedance.
- VIDEO — 1 Vp-p (nominal, sync negative and white peaks positive), AC coupled, 75 ohms impedance.

Output:
- IMPEDANCE — 300 ohms.
- FREQUENCIES — Channel 3, 61.25 MHz (nominal). Channel 4, 67.65 MHz (nominal).
- SOUND SUBCARRIER — 4.5 MHz (nominal).

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